

REMARKS

Applicant appreciate the Examiner's thorough examination of the present application as evidenced by the Office Action. Claims 1-21 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent Appl. Pub. No. 2002/0087414 to Takatsu (Takatsu). Applicants have carefully examined Takatsu and submit that Takatsu fails to teach or suggest many recitations of the pending claims, and accordingly, Applicants request reconsideration and allowance of the pending claims for at least the reasons explained below.

Independent Claims 1, 11, and 17:

Claims 1 has been amended to clarify that its steps are implemented by a computer. Claim 1 recites a method of managing a communication interface between an order generating program and an order processing program, and includes the following recitations:

- 1) computer-implemented monitoring at least one metric that is based on orders passing from the order generating program to the order processing program;
- 2) computer-implemented determining that the communication interface between the order generating program and the order processing program has failed based on the monitored metric; and
- 3) computer-implemented restarting the communication interface between the order generating program and the order processing program based on determining that the communication interface has failed.

Independent Claim 11 has been amended to include similar recitations to Claim 1.

In rejecting Claim 1, the Office Action on page 3 suggests that the recitations of above-enumerated paragraphs 1) and 2) are disclosed by paragraphs 98-100 and 176 of Takatsu. Takatsu is directed to an order settlement system that includes Web servers and a centralized point server. (*see* Takatsu, Abstract, and paras. 98-100) The Web servers receive orders from customers, and communicate with a centralized point server to enable the customers to earn points based on how much money they spend with the Web servers. (*See*, Takatsu, paras 0127 and 98-100) Takatsu envisioned that points would be awarded only when more than a certain cumulative amount of money has been spent by a customer via the

member Web servers. Accordingly, Takatsu describes operations in paragraph 0176 by which the cumulative money that has been spent is dynamically tallied, and is **temporarily stored** with the order numbers and points at the storage devices 12B-J. (*See*, Takatsu, para 0127) It is in this context that Takatsu describes in paragraphs 0176 and 0177 how the system determines when the order information that is temporarily stored in the storage devices 12B-J can be erased. In particular, Takatsu's paragraphs 0176 and 1077 recites (emphasis added):

[0176] The processor 12A-j of point server 12-j performs the aforementioned processing while monitoring time required for settlement. More specifically, first, the processor 12A-j temporarily stores the order number and order information received from the Web server 11-j in the storage 12B-j to be associated with time information. The processor 12A-j monitors time that has elapsed since the order number and order information were temporarily stored based on time information, which is continuously output from the processor 12A-j and time information, which is temporarily stored in the storage 12B-j. However, when this order number is transmitted from the Web server 11-j together with notification that settlement has been normally completed, the processor 12A-j stops monitoring.

[0177] Then, when detecting that a fixed time has been elapsed with no transmission of notification that the order number and settlement are normally completed from the Web server 11-j, the processor 12A-j erases the said order number and the said order information temporarily stored in the storage 12B-j.

Thus, Takatsu's system assumes that when a fixed time elapses, following a last receipt of an order number and settlement notice, that the order is complete and, therefore, the system erases the order information that was temporarily stored in the storage devices 12B-J. Consequently, if the communication interface between the Web server 11-j and the point server 12-j fails, thereby halting communication of order number and settlement notifications therebetween for more than the fixed time, "the processor 12A-j [in the point server 12-j] erases the ... order number[s] and the ... order information[s] temporarily stored in the storage 12B-j" of the Web server 11-J. (Takatsu, paras. 0176-0177). Takatsu's system therefore appears to be highly vulnerable to communication interface failure, since failure results in an erroneously conclusion that an order is completed, causes improper erasure of information stored in the Web server 11-J, and may result in an erroneous operational result and/or may degrade the performance of the system.

Applicants note that neither the cited paragraphs nor elsewhere does Takatsu describe or suggest that the communication interface between the Web server 11-J and the point server 12-J can be determined to have failed based on monitoring at least one metric for orders passing from the Web server 11-J to the point server 12-J. Accordingly, Applicants submit that Takatsu does not describe or suggest either of the above-enumerated paragraphs 1) and 2) of Claim 1.

The Office Action on page 3 concedes that Takatsu does not describe or suggest the above-enumerated paragraph 3) of Claim 1, of restarting the communication interface between the order generating program and the order processing program based on determining that the communication interface has failed. However, the Office Action on page 3 suggests that recitations of paragraph 3 would have been obvious to one of skill in the art in view of Takatsu "because it would have enabled the monitoring program [to continue] to operate properly to monitor elapsed time of other pending orders." However, Takatsu does not describe or suggest why or how failure of the communication interface between the Web server 11-J and the point server 12-J can be detected, and does not provide any motivation for what action, if any, the system should take if failure of the communication interface were to be detected. Indeed, Takatsu teaches one of ordinary skill in the art that lack of communications within a threshold time indicates that an order has completed, and that order information that has been temporarily stored should be erased. Consequently, Applicants submit that Takatsu provides no motivation to one of ordinary skill in the art to restart a communication interface between an order generating program and an order processing program in the manner recited in Claim 1. For at least these reasons, Applicants submit that Claim 1 is patentable over Takatsu.

Independent Claims 11 and 17 include similar recitations to independent Claim 1, and, accordingly, are submitted to be patentable Takatsu for at least the reasons explained above for Claim 1.

Dependent Claims 2-10, 12-16, and 18-21:

The dependent claims are submitted to be patentable at least pursuant to the patentability of the independent claims from which they depend. Moreover, Applicants

submit that many of these dependent claims provide independent bases for patentability over Takatsu for at least the reasons explained below.

Dependent Claim 4 recites that the communication interface is determined to have failed when a threshold time has elapsed since an order has passed from the order generating program to the order processing program, where the threshold time varies based on time of day. Dependent Claims 14 and 19 contain similar recitations to Claim 4. Dependent Claims 5, 15, and 20 similarly recite that the threshold time varies based on the particular day. Accordingly, the threshold time, which is monitored to detect communication interface failure, can be varied to compensate for utilization patterns that are predicted or observed for various times of day and days of the week.

In rejecting Claims 4, 5, 14, 15, 19, and 20, the Office Action on page 3 states that "it would have been further obvious to one skilled in the art to utilize any time thresholds in practicing Takatsu's invention." However, Takatsu does not describe or suggest that the communication interface between the Web server 11-J and the point server 12-J can be determined to have failed based on monitoring metrics for orders passing from the Web server 11-J to the point server 12-J. Consequently, Applicants submit that Takatsu provides no motivation to one of ordinary skill in the art to determine that a communication interface has failed based on monitored communications and, much less, to determine interface failure based on expiration of a threshold time that varies based on the time of day and/or day of the week. Applicants therefore submit that Claims 4, 5, 14, 15, 19, and 20 provide independent bases for patentability over Takatsu.

Dependent Claim 6 recites that a trend is generated over time for the elapsed time between orders passing from the order generating program to the order processing program, and that the communication interface therebetween is determined to have failed based on the trend over time. Accordingly, the system may dynamically adapt over time based on observed trends over time between orders so that failure of the communication interface may be more accurately detected. Applicants submit that Takatsu provides no motivation to one of ordinary skill in the art to generate a trend over time for elapsed time between orders passing from the Web server to the point server and, much less, to determine that a communication interface therebetween has failed based on such trend information.

Applicants therefore submit that Claim 6 provides independent bases for patentability over Takatsu.

Dependent Claim 7 recites that orders passing from the order generating program to the order processing program are monitored to generate an association between time of day and elapsed time between orders, and that the communication interface therebetween is determined to have failed based on the present time of day and elapsed time between orders. Accordingly, the system may dynamically adapt over time based on observed trends at particular times of day for the elapsed time between orders so that failure of the communication interface may be more accurately detected. Applicants submit that Takatsu provides no motivation to one of ordinary skill in the art to generate an association between time of day and elapsed time between orders passing from the Web server to the point server and, much less, to determine that the communication interface therebetween has failed based on the present time of day and elapsed time between orders. Applicants therefore submit that Claim 7 provides independent bases for patentability over Takatsu.

Dependent Claim 9 recites that the communication interface between the order generating interface and the order processing program is restarted by invoking a program object that removes a proxy for the communication interface between the order generating program and the order processing program, and invoking a program object that creates a proxy for a new communication interface between the order generating program and the order processing program. In rejecting Claim 9, the Office Action on page 3 states that "it would have been further obvious to one skilled in the art to utilize any time thresholds in practicing Takatsu's invention." Applicants submit that Takatsu provides no motivation for one skilled in the art to carry out the invention of Claim 9, and submit that the Office Action has not provided a *prima facie* basis for the rejections of Claim 9. Claims 16 and 21 contain similar recitations to Claim 9 and are submitted to be patentable for at least the reasons provided for Claim 9.

CONCLUSION

Applicant respectfully requests withdrawal of all objections and rejections and the allowance of all claims in due course. If, in the opinion of the Examiner, a telephonic

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conference would expedite the examination of this matter, the Examiner is encouraged to contact the undersigned by telephone at (919) 854-1400.

Respectfully submitted,

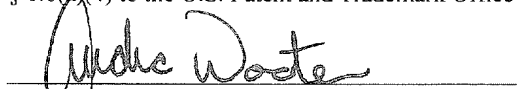


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CERTIFICATION OF TRANSMISSION

I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on July 23, 2007.


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